

(FILE 'HOME' ENTERED AT 13:16:04 ON 07 NOV 2003)

FILE 'REGISTRY' ENTERED AT 13:16:27 ON 07 NOV 2003

E "URIDINE 5'-DIPHOSPHATE-.ALPHA.-D-GLUCOSE"/CN 25

E "URIDINE 5'-DIPHOSPHATE-D-GLUCOSE"/CN 25

L1 1 S E7

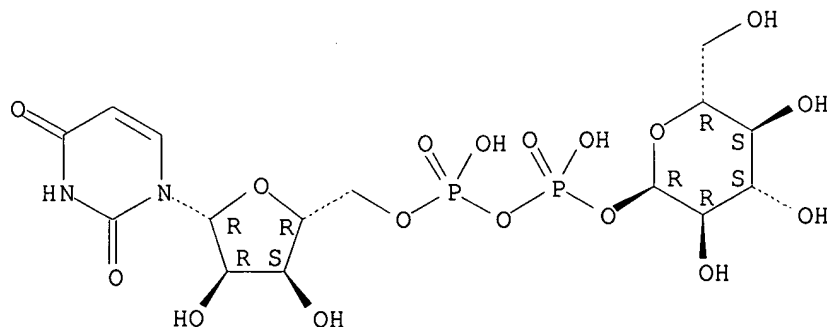
FILE 'CAPLUS, MEDLINE, USPATFULL' ENTERED AT 13:20:15 ON 07 NOV 2003

L2 2893 S L1

L3 4 S L2 AND GLAUCOMA

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 133-89-1 REGISTRY
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester
 (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Uridine 5'-(trihydrogen pyrophosphate), mono-.alpha.-D-glucopyranosyl
 ester (8CI)
 CN Uridine 5'-pyrophosphate, .alpha.-D-glucopyranosyl ester (6CI, 7CI)
 OTHER NAMES:
 CN UDP-.alpha.-D-Glucose
 CN UDP-D-glucose
 CN UDP-Glc
 CN UDP-Glucose
 CN UDPG
 CN Uridine 5'-(.alpha.-D-glucopyranosyl pyrophosphate)
 CN Uridine 5'-(trihydrogen pyrophosphate), mono-D-glucosyl ester
 CN Uridine 5'-diphosphate glucose
 CN **Uridine 5'-diphospho-.alpha.-D-glucose**
 CN Uridine 5'-diphosphoglucose
 CN Uridine diphosphate glucose
 CN Uridine diphospho-D-glucose
 CN Uridine diphosphoglucose
 CN Uridine pyrophosphate-glucose
 FS STEREOSEARCH
 DR 6659-38-7, 9002-11-3, 58-99-1, 73-37-0, 528-05-2, 25360-00-3, 99020-05-0,
 99211-62-8, 30142-51-9, 30323-28-5
 MF C15 H24 N2 O17 P2
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMINFORMRX,
 CHEMLIST, CSChem, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDb, IPA,
 MEDLINE, MRCK*, NAPRALERT, PIRA, TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2086 REFERENCES IN FILE CA (1907 TO DATE)
 21 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 2086 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 103 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

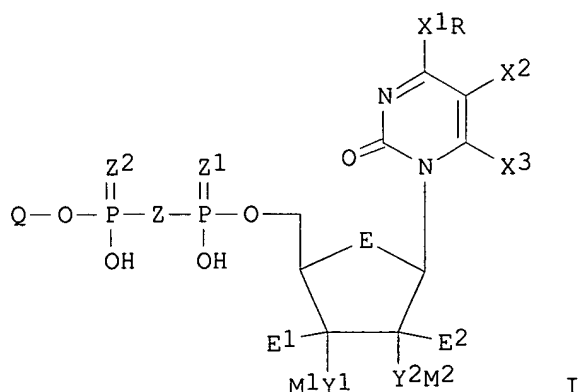
L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2002:696652 CAPLUS
 DOCUMENT NUMBER: 137:179916
 TITLE: Compositions and methods for the treatment of
glaucoma or ocular hypertension using
 nucleotide 5'-diphosphate glycopyranosides
 INVENTOR(S): Boyer, Jose L.; Yerxa, Benjamin R.; Plourde, Robert;
 Brown, Edward G.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U. S.
 Ser. No. 934,970.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 13
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002128224	A1	20020912	US 2002-87551	20020227
US 2002052337	A1	20020502	US 2001-934970	20010821
WO 2003072066	A2	20030904	WO 2003-US6685	20030227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
 RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
 ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-643138 A2 20000821
 US 2001-934970 A2 20010821
 US 2002-87551 A 20020227

OTHER SOURCE(S): MARPAT 137:179916
 GI



AB The present invention is directed to a method of reducing intraocular pressure. The method comprises administering to a subject a pharmaceutical compn. comprising an effective amt. of a nucleotide 5'-pyrophosphate pyranoside or analogs I wherein X1 is independently O, NR1, S, CF2, CF3, CN, bond; X2 is H, halogen, CN, ether, thioether, amine, CF3, alkyl, cycloalkyl, arylalkyl, aryl, arylalkenyl, arylalkynyl, acyl,

ester, amide, heterocycle; X3 is H, CN, ether, thioether, amine, CF3, alkyl, cycloalkyl, acyl, ester, amide arylalkyl, aryl, arylalkenyl, arylalkynyl, heterocycle; R is H, alkyl, cycloalkyl, arylalkyl, aryl, heterocycle, acyl, ester, amide; R1 is H, ether, alkyl, cycloalkyl, arylalkyl, aryl, acyl, ester, amide; E is O, CH2; E1, E2 are independently H, F; E1E2 together are C-C bond; Y1 and Y2 are independently O, F, with the proviso that when Y1 and Y2 are F, then M1 and M2 are absent; M1 and M2 are independently H, alkyl, cycloalkyl, arylalkyl, acyl, ester, amide; Z is O, substituted nitrogen, CH2, CHF, CF2, CCl2, CHCl; Z1 and Z2 are independently O, S; Q is heterocycle, sugar residue. The method of the present invention is useful in the treatment or prevention of ocular hypertension, such as found in **glaucoma**, including primary and secondary **glaucoma**. The method can be used alone to reduce intraocular pressure. The method can also be used in conjunction with another therapeutic agent or adjunctive therapy commonly used to treat **glaucoma** to enhance the therapeutic effect of reducing the intraocular pressure. The present invention also provides a novel compn. comprising a nucleotide 5'-pyrophosphate pyranoside or analogs. The action of UDP-.alpha.-D-glucose (II) on intraocular pressure (IOP) was assessed in New Zealand white rabbits. Effect of II produced a time-dependent redn. in IOP, which was maximal from 0.5 to 5 h with a redn. of 26% (n=4). This lowering of intraocular pressure in rabbits by II demonstrates the utility of UDP-.alpha.-D-glucose for treating ocular hypertension and **glaucoma**.

IT 133-89-1

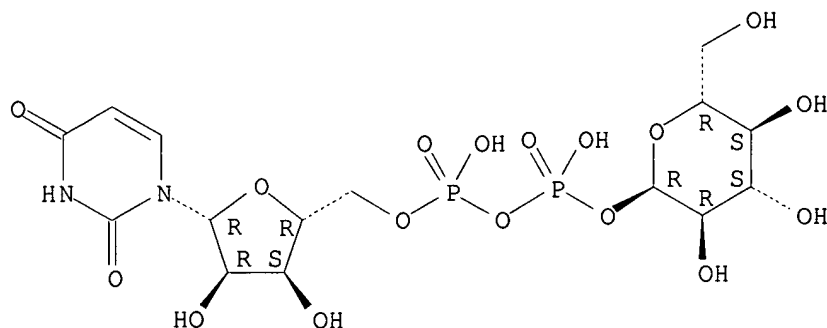
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compns. and methods for the treatment of **glaucoma** or ocular hypertension using nucleotide 5'-phosphate glycopyranosides)

RN 133-89-1 CAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:636980 CAPLUS

DOCUMENT NUMBER: 127:233623

TITLE: Sugar nucleotide synthesizing enzymes from nonparasitic Protista

INVENTOR(S): Kiy, Thomas; Elling, Lothar; Kula, Maria Regina

PATENT ASSIGNEE(S): Hoechst A.-G., Germany

SOURCE: Ger. Offen., 21 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19608268	A1	19970911	DE 1996-19608268	19960305
EP 816489	A1	19980107	EP 1997-102967	19970224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
US 6143539	A	20001107	US 1997-796697	19970303
CA 2199093	AA	19970905	CA 1997-2199093	19970304
JP 09238677	A2	19970916	JP 1997-50203	19970305
US 2003207433	A1	20031106	US 2003-436382	20030512
PRIORITY APPLN. INFO.:			DE 1996-19608268 A	19960305
			US 1997-796697 A3	19970303
			US 2000-618822 B1	20000718

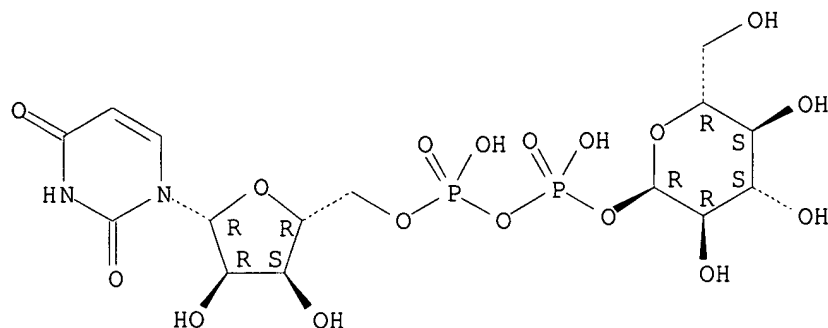
AB The prodn. of sugar nucleotide-synthesizing enzymes (nucleotidyltransferases or pyrophosphorylases) from nonparasitic protists and their use for the prodn. of sugar nucleotides are claimed. These enzymes allow the elimination or simplification of expensive preliminary steps in the manuf. of sugar nucleotides such as GDP-fucose, GDP-mannose, UDP-glucose, UDP-galactose, UDP-galactosamine, UDP-N-acetylglucosamine, and UDP-N-acetylgalactosamine.

IT **133-89-1P**, UDP-glucose
 RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
 (sugar nucleotide-synthesizing enzymes from nonparasitic Protista)

RN 133-89-1 CAPLUS

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 3 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2002:236026 USPATFULL

TITLE: Compositions and methods for the treatment of **glaucoma** or ocular hypertension

INVENTOR(S): Boyer, Jose L., Chapel Hill, NC, UNITED STATES
 Yerxa, Benjamin R., Raleigh, NC, UNITED STATES
 Plourde, Robert, JR., Chapel Hill, NC, UNITED STATES
 Brown, Edward G., Apex, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002128224	A1	20020912
APPLICATION INFO.:	US 2002-87551	A1	20020227 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-934970, filed on 21 Aug 2001, PENDING Continuation-in-part of Ser. No. US 2000-643138, filed on 21 Aug 2000, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	HOWREY SIMON ARNOLD & WHITE, LLP, BOX 34, 301 RAVENSWOOD AVE., MENLO PARK, CA, 94025		

NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 1358
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a method of reducing intraocular pressure. The method comprises administering to a subject a pharmaceutical composition comprising an effective amount of a nucleoside 5'-pyrophosphate pyranoside or analogue, which is defined by general Formula I. The method of the present invention is useful in the treatment or prevention of ocular hypertension, such as found in **glaucoma**, including primary and secondary **glaucoma**. The method can be used alone to reduce intraocular pressure. The method can also be used in conjunction with another therapeutic agent or adjunctive therapy commonly used to treat **glaucoma** to enhance the therapeutic effect of reducing the intraocular pressure. The present invention also provides a novel composition comprising a nucleoside 5'-pyrophosphate pyranoside or analogues.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

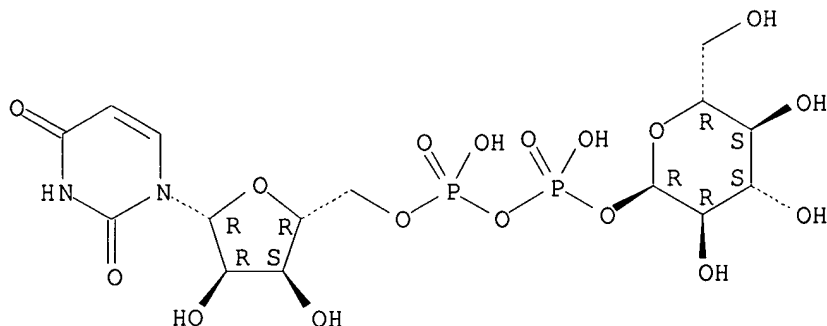
IT 133-89-1

(compsn. and methods for the treatment of glaucoma or ocular hypertension using nucleotide 5'-phosphate glycopyranosides)

RN 133-89-1 USPATFULL

CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 4 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2000:149959 USPATFULL

TITLE: UDP-glucose pyro phosphorylase enzymes from nonparasitic protozoa

INVENTOR(S): Kiy, Thomas, Frankfurt, Germany, Federal Republic of
Elling, Lothar, Aachen, Germany, Federal Republic of
Kula, Maria Regina, Niederzier-Hambach, Germany,
Federal Republic of

PATENT ASSIGNEE(S): Hoechst Aktiengesellschaft, Frankfurt am Main, Germany,
Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6143539		20001107
APPLICATION INFO.:	US 1997-796697		19970303 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19608268	19960305
DOCUMENT TYPE:	Utility	

FILE SEGMENT: Granted
 PRIMARY EXAMINER: Marx, Irene
 LEGAL REPRESENTATIVE: Frommer Lawrence & Haug LLP
 NUMBER OF CLAIMS: 5
 EXEMPLARY CLAIM: 1
 LINE COUNT: 465

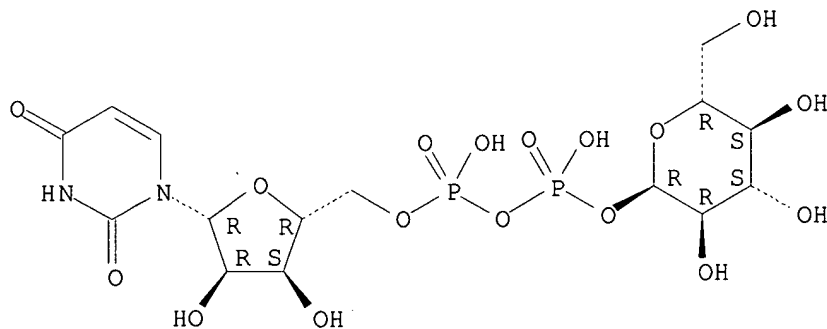
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to nucleotide-sugar-synthesizing enzymes (enzymes with nucleotidyltransferase or pyrophosphorylase activity) from nonparasitic protists, to a process for the preparation thereof and to the use thereof for preparing nucleotide-sugars. The enzymes according to the invention make possible or greatly simplify the enzymatic preparation of various nucleotide-sugars on the industrial scale from low-cost precursors. It is possible with the aid of the discovered enzymes to prepare, for example, GDP-fucose, GDP-mannose, UDP-glucose, UDP-glucosamine, UDP-galactose, UDP-galactosamine, UDP-N-acetylglucosamine and UDP-N-acetylgalactosamine in economic quantities.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **133-89-1P**, UDP-glucose
 (sugar nucleotide-synthesizing enzymes from nonparasitic Protista)
 RN 133-89-1 USPATFULL
 CN Uridine 5'-(trihydrogen diphosphate), P'-.alpha.-D-glucopyranosyl ester
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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